

**IN VITRO AND IN VIVO PROLIFERATION AND USE OF MULTIPOTENT
NEURAL STEM CELLS AND THEIR PROGENY**

ABSTRACT

~~Nucleic acids cDNA libraries~~ may be obtained from neural cell cultures produced by using growth factors to induce the proliferation of multipotent neural stem cells. ~~The resultant progeny may be passaged repeatedly to produce a sufficient number of cells to obtain representative nucleic acid samples. Clonal cultures may be produced.~~ The libraries may be obtained from both cultured normal and dysfunctional neural cells and from neural cell cultures at various stages of development. This information allows for the identification of the sequence of gene expression during neural development and can be used to reveal the effects of biological agents on gene expression in neural cells. Additionally, nucleic acids derived from dysfunctional tissue can be compared with that of normal tissue to identify genetic material which may be the cause of the dysfunction. This information could then be used in the design of therapies to treat the neurological disorder. A further use of the technology would be in the diagnosis of genetic disorders or for use in identifying neural cells at a particular stage in development.